

there will be no standard of comparison between SWBT basic services used to supply its own Clause 2 and most Clause 3 enhanced services and SWBT basic services used by other ESPs to supply their Clause 2 and certain Clause 3 enhanced services. However, SWBT obviously has every incentive under these circumstances to provide only the best possible services to Clause 2 and 3 ESPs and it will make every effort to do so. Moreover, SWBT's methods for tracking service quality generally will ensure that SWBT will not favor its own enhanced offerings in terms of basic service provisioning.

Finally, information utilized by SWBT in providing its unbundled basic services (such as Calling Number Identification), that is not proprietary to its customers, will be made equally available to others, as required by the Commission.<sup>89</sup>

~~2. Technical Characteristics~~

~~The technical characteristics of SWBT's initial set of BSAs/BSEs/CNSs vary widely. These technical characteristics will be uniformly provided to all ESPs, including SWBT, with no end user-perceptible inequality. The standard~~

(Footnote Continued)

interaction with stored information" (referred to herein as "storage and retrieval" or "Clause 3 services"). (47 C.F.R. § 64.702(a))

<sup>89</sup>Phase I Order, para. 158.

APPENDIX D

Pacific Bell Unbundling CEI Plan

(CC Docket 88-2, Filed February 1, 1988, pages 39-40)

~~Hardware will be standardized to the extent possible given the Pacific Companies' need to evolve the network and its functionality. Much of the increased functionality is the result of ESP industry requests. The three direct methods of communicating standards will be via Bellcore technical advisories and technical references, approved standards recommendations, and the IILC ("Information Industry Liaison Committee").~~

~~Software standards involve two distinct forms: (1) network protocols for the setting up of calls, call completion, and billing (including signaling); and (2) ancillary systems that enhance the ordering, maintenance and repair of telephone service. Network protocols will be handled through Bellcore and the IILC in the same manner as hardware. Software standards for ancillary services will be established as these systems become available.~~

B. Unbundling of Basic Services. The Pacific Companies will work to eliminate unnecessary bundling in future network services. The Pacific Companies will unbundle BSEs requested by ESPs from other rate elements where technically and economically feasible. These unbundled BSEs must be purchased with a BSA, however, due to the technical requirements of the network (e.g. Forwarded Call Information - Multiple User requires the purchase of a Dedicated Private Line BSA). This does not preclude the

offering of a bundled set of services where requested (e.g. Forwarded Call Information, or SMDI).

~~C. Price Equality and Resale. The Pacific Companies' enhanced service operations will purchase BSA and BSEs at tariffed rates available to all ESPs.~~

~~The Pacific Companies will not offer resale for all of their basic services. However, those that appear in the best interest of the Pacific Companies, their customers, and ratepayers, will be studied for offering on a bulk purchase and resale basis. Examples of products which will be available for resale are Call Forwarding, Busy Line/Don't Answer and Message Waiting Indicator.~~

~~D. Technical Characteristics. In some cases, the Pacific Companies will not be able to provide BSEs in certain geographical areas because the technical characteristics of the switch that serves the area may be limited. For example, stored program control switches may have generic software that has the functionality required by the ESP, but the software design does not offer the function on a stand alone basis. Bundled functionality may limit offerings until generics have been specified, funded, developed, and installed. Also, an ESP's location may affect the ability to deliver network capabilities on a technically equal basis. Finally, distance from the central~~

APPENDIX E

NYNEX Resale CEI Plan

(CC Docket 88-2, Filed February 1, 1988, pages 73-74)

~~Another analysis which must be made is how the unbundled service will "fit" with existing services. NYNEX has existing tariff structures that have been established to cover its cost of doing business. To the extent that an unbundled service with a lower price is offered to meet the needs of a particular group of customers, it may be difficult to convince other customers and regulators that they have to make up the difference.~~

~~Notwithstanding the above, NYNEX is still intent on offering services that meet the needs of the ESP industry. If there is a function that can be utilized on an unbundled basis for which there is sufficient demand, NYNEX will consider unbundling that function. We will treat such requests as we would any other request for a new product or service. Obviously, to unbundle a function requires that it be technically feasible, and also that NYNEX can measure it in order to perform proper billing.~~

### C. Resale

This CEI parameter requires NYNEX's ESP to take the underlying basic services at their unbundled tariffed rates.\* NYNEX supports this requirement and agrees that, to the extent it offers any enhanced services, it will take the underlying basic services at unbundled tariff rates.

The Commission's concern with this parameter was to prevent improper cost-shifting to regulated operations and

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\* Phase I Order at ¶ 159.

anticompetitive pricing in unregulated markets.\* NYNEX believes that this parameter can also be satisfied by adherence to the provisions of the Joint Cost Order as provided for in NYNEX's Cost Allocation Manual discussed infra.

~~D. Technical Characteristics~~

~~As part of its ONA offering, NYNEX must provide the underlying basic services to competing ESPs "with technical characteristics that are equal to those of the basic services [used by NYNEX] for its own enhanced services."\*\* The Commission has stated that it will not "demand impossible or grossly inefficient over-engineering of the network so that absolute equality is always achieved." Rather, it will evaluate technical equality on the basis of "the absence of systematic differences between basic service access given to the carrier and to others, end-user perception of equality and utility to other enhanced service providers, i.e., whether any technical differences affect the ability of competitors to provide their enhanced services."\*\*\*~~

~~To the extent NYNEX offers collocated enhanced services, it will employ BSAs for which the same interface specifications will apply as for a non-collocated ESP. These specifications guarantee that the signals delivered by a BSA to~~

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\* Id.

\*\* Id. at ¶ 160.

\*\*\* Phase I Reconsideration Order at ¶ 92 (footnote omitted).

APPENDIX F

Ameritech Technical Characteristics CEI Plan

(CC Docket 88-2, Filed May 19, 1989, page 76)



~~In response to industry requests for uniformity, the AOCs, in conjunction with the other BOCs, have pursued a common framework for the provision of BSIs, and to the extent possible, the interoperability of their networks. Interoperability issues are being addressed and must continue to be addressed by the interexchange carriers whose facilities are required to provide interLATA delivery of BSE functionality for nationwide enhanced services.~~

## 2. TECHNICAL CHARACTERISTICS

The AOCs are committed to ensuring that the technical quality of services delivered in the ONA structure meets their high standards of performance. AOC technicians will install and maintain BSAs according to the appropriate operations procedures and technical performance objectives. By employing these accepted standard procedures for BSA installation and maintenance and BSE delivery, the AOCs will uniformly apply the principles for evaluating the quality of BSA and BSE technical characteristics for all enhanced service providers. These principles, as expressed by the Commission, include the absence of systematic differences between basic service access given to the carrier and to others, end user perception of equality, and utility to other enhanced service providers.<sup>47/</sup>

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<sup>47/</sup> Id. at para. 147, note 209.

APPENDIX G

Ameritech Installation, Maintenance, and Repair CEI Plan

(CC Docket 88-2, Filed May 19, 1989, pages 82-93)

~~3. BSE ACCESS~~

~~1. RECIPIENTS~~

~~The AOCs will not restrict the availability of the BSEs listed in Section III of this Plan to any particular class of customer. These BSEs, and their corresponding BSAs, will be made available to any customer for any use subject to applicable tariff terms and conditions.<sup>53/</sup>~~

2. INSTALLATION AND MAINTENANCE

In its Phase I Reconsideration, the Commission provided, inter alia, that the BOCs may be relieved of the requirement that they submit reports on the quality of the basic services that are provided under ONA. To obtain this relief, the BOCs were required to amend their ONA plans to include a detailed description of their installation and maintenance procedures, demonstrating an inability to engage in quality-based discrimination. Moreover, the BOCs were required to describe the training that they provide to their employees to insure that the employees comply with the Commission's nondiscrimination rules.

On March 10, 1988, the AOCs submitted amendments to their Initial ONA Plan. The amendments provided detailed descriptions

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<sup>53/</sup> Although the AOCs will not advocate such restrictions, state jurisdictions could choose to exercise their authority to restrict the use of those ONA components that are offered as intrastate telecommunications services.

of the AOCs' provisioning, installation, maintenance and training procedures, and demonstrated that the Companies cannot discriminate in favor of affiliated enhanced services operations. Available circuits and equipment are assigned on a "first-come, first-served" basis through highly mechanized procedures that neither depend on, nor are affected by, whether a particular customer is an affiliated or nonaffiliated ESP. The circuit assignment systems do not contain information on the identity of customers, and the AOCs will make no effort during the actual facilities and equipment assignment process to determine whether a particular ordering customer is an ESP.<sup>54/</sup> The systems are blind to the use that a customer will make of particular facilities and equipment, and many enhanced services will rely on basic network services that are no different from those used by other customers. The AOCs' testing procedures are designed to assure that circuits meet tariffed standards; they are not set up to provide and generally do not contain any information related to the relative quality of available facilities and equipment.

In its December 22 Order, the Commission found that the AOCs' service installation and maintenance procedures, as described in their March 10 Amendment, are sufficiently automated

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<sup>54/</sup> To provide better service, requests relating to ONA offering will initially be directed to a provisioning team specially trained to handle orders for such services. However, this will not affect the blind nature of the facility provisioning process.

that discrimination in the installation and maintenance of basic services is difficult and unlikely.<sup>55/</sup> The Commission, therefore, has permitted the Companies to modify the format of their nondiscrimination reports that they are required to file so as to compare installation and maintenance performance provided for their own enhanced services with that provided to a sampling of all customers.

The Commission also found in its December 22 Order, that the AOCs' provisioning procedures and systems preclude quality-based discrimination.<sup>56/</sup> As a result, the Commission removed the quality reporting requirement for the Companies.

The relevant and approved portions of the March 10 Amendment have been incorporated below in this Plan. The revised reports, and the requisite annual affidavits, are discussed in Section VIII and Appendix 12.

a. PROVISIONING

The provisioning process begins when a customer contacts an AOC to request a service. ESPs will use the same ordering channels as all other customers, and will purchase ONA and existing basic services from the same centers that they are currently acquired from. However, to provide better service,

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<sup>55/</sup> December 22 Order at para. 468.

<sup>56/</sup> Id. at para. 472.

where a request is identified as relating to CNA offerings, it will be received by a team specially trained to handle orders for the full range of BSAs, BSEs and CNSs offered under the CNA structure.

BSAs, BSEs and CNSs provided by the AOCs will be made available to all prospective users in a nondiscriminatory fashion. Although customers identify themselves by name and address when ordering services, this information is used only -- and is necessary -- to enable the AOCs to facilitate maintenance and billing functions. Nonaffiliated ESPs will not be asked to identify themselves as such during the ordering process, and no special identification will be added to their records should they choose to indicate their line of business.

The availability of contact personnel and the manner in which those personnel process orders will be identical for all similarly situated customers, regardless of business affiliation. Requests for services may be transmitted orally or in written form. Mechanized customer order input alternatives are under consideration to satisfy ESP capability requests and to handle potential order volume increases.

Since billing cannot take place until order completion, the AOCs have an economic incentive to complete orders for all customers -- regardless of their business affiliation -- in a timely fashion. All requests for service are handled on a "first-come, first-served" basis. Contact personnel are responsible for provisioning network service to all customers in

accordance with stringent corporate standards for accessibility, accuracy, helpfulness, timeliness of contact and timeliness of order processing.

Due date intervals are assigned in accordance with published standards. These intervals are the same for all customers requesting similar types and quantities of services. Service requests that exceed defined interval parameters due to, e.g., request complexity, are negotiated directly with the customer.

Requests for service are recorded on a Universal Service Order ("USO"), which is entered into a service order distribution system. The types of systems deployed may differ among the AOCs, but each system is designed to receive, store and distribute service orders to the various organizations responsible for providing technical and administrative support to complete the orders. The service order distribution systems are due date driven, based on the assigned service order due date derived from published standards or negotiated between the customer and AOC service order center. Each customer is informed of the due date at the time the order is placed.

b. CIRCUIT ASSIGNMENT AND DESIGN

Orders for designed services flow to a Circuit Provisioning Center ("CPC") where the circuit layout is designed and the necessary equipment and circuit assignments are made. The work operations in this center are supported by a mechanized system called Trunks Integrated Records Keeping System ("TIRKS"), which

schedules service installation tasks based on service order due dates, performs inventory assignment functions, and for many circuit types performs mechanized circuit design functions. Services are made up of piece parts assigned from mechanized TIRKS inventory databases. For each designed order the circuit is engineered and created from available facilities and equipment assigned by TIRKS.

TIRKS equipment and facility databases contain no special information on the identity of the customer, and the circuit design is based entirely on the service ordered and its tariffed parameters. The mechanized assignment processes employed are blind to the use that the customer will make of the service. They assign equipment, facilities and telephone numbers on a "first-come, first-served" basis. The TIRKS circuit design process is automated, and is based on efficiency of routing and availability of facilities appropriate for the service ordered by the customer. TIRKS identifies and assigns specific pieces of equipment in each office, rather than generic equipment types. TIRKS contains no information on the quality of a particular facility or item of central office equipment; the processes of assignment and mechanized circuit design therefore present no opportunity for discrimination on that basis.

Once the ordered service has been designed, a document known as the Work Order Record Document ("WORD") is automatically transmitted to the necessary work organization(s).



Service orders for both designed and nondesigned service are transmitted to a Loop Assignment Center ("LAC") or similar organization. These operations in each AOC except Wisconsin Bell are supported by the Computer System for Mainframe Operations ("COSMOS"), which inventories and assigns central office line equipment and telephone numbers. The Facility Assignment and Control System ("FACS") or Mechanized Assignment Records Conversion System ("MARCS") are used to assign outside local loop facilities. Wisconsin Bell combines the functions of line equipment and outside loop facilities assignments in its Mechanized Assignment Control system ("MAC"). In instances where discrepancies in normal assignment functions occur, for example, where facilities or line equipment are unavailable, the order will go to an estimate assigner who seeks alternate telephone company facilities. Because the AOCs' switched services are provided using common public network facilities selected automatically for each individual call, there is no opportunity for the AOCs to assign specific facilities or discriminate on the basis of quality. Any attempt to discriminate in the engineering of a circuit would require extraordinary manual effort -- among numerous individual employees in diverse locations -- and would result in costly disruption of the provisioning processes due to the bypassing of existing mechanized systems and procedures for circuit design and provisioning.

### c. INSTALLATION

A control center coordinates the activities of the various organizations to assure that the physical work necessary to provide overall service is accomplished. Work priorities are established by the due dates provided on the service order. The design of the AOCs' administrative support systems prevent individual employees from altering service orders, due dates or circuit related technical specifications.

When physical work is required at the customer's premises, a field technician is dispatched to install the service to a network interface. After performing the necessary work, the technician tests the service for operational functionality and to ensure that tariffed technical specifications are met. Testing parameters are based only on the type of service ordered and are not associated with a customer's business affiliation. Because the sole purpose of the testing is to determine whether or not the installation meets tariffed standards, it is not necessary to record results more detailed than an indication of passage or failure.

When the service is established, the service order distribution system is updated to indicate completion. That system in turn notifies the billing system so that billing functions may be initiated.

AOC managers in installation work groups are measured and rated based on the quality of service their units provide. The measurements track such items as the percent of installation due

dates met for all types of services provided. A manager, therefore, has an economic incentive to provide the best customer service in all cases.

d. MAINTENANCE

All customers report service trouble to centralized repair bureaus. The repair service attendant asks the identity of the service in trouble, the trouble location, and the nature of the trouble. The AOCs do obtain the customer's name in this process; however, restoration intervals depend strictly on the circuit type and the outage condition. In the case of nondesigned services, the customer is given a standard commitment interval depending upon the type of trouble reported and the facilities and equipment involved. These intervals are based on whether the customer is completely out-of-service, or whether the trouble only partially affects service. Customers with complete service outages are given priority treatment. The design of these mechanized systems, which are separate and distinct from the service order systems, prevents AOC employees from changing service intervals. In addition, there is no indication on the trouble ticket record that distinguishes affiliated ESPs from nonaffiliated ESPs, or from any other customer.

Trouble reports for nondesigned services are entered into a mechanized trouble report tracking system, such as the Loop Maintenance Operation System ("LMOS"). In conjunction with LMOS, Mechanized Loop Testing ("MLT") or similar test systems, where

installed, provide sophisticated testing capabilities for more accurate isolation of trouble. The tests performed and results obtained are used to restore the affected service to tariffed technical parameters. Trouble reports for designed services are, in the majority of cases, entered into a similar mechanized trouble tracking system.

Both manual and mechanized trouble tickets for designed and nondesigned services carry the date and time that a customer reported a service problem and the date and time that the problem was resolved. The trouble ticket serves as the audit trail for documentation of maintenance services quality and performance.

Trouble tickets involving designed services are passed on to the Special Service Center ("SSC") assigned maintenance responsibility for the service. Upon receipt of the trouble ticket, the SSC performs tests to determine the cause of the reported trouble. Priority is given to trouble reports based on Commission-determined restoration requirements (e.g., military installations), and known critical services such as hospitals and police and fire departments. Trouble tickets that do not fall into these categories are handled on a "first-in, first-out" basis.

After the cause of the trouble is identified, the matter is referred to the work organization responsible for repairing the affected network element. These work groups restore service based on the same priorities described above. When the problem has been resolved, testing is conducted to ensure that service

has been restored to tariffed technical parameters, and the customer is notified.

Once the service is restored, the trouble disposition and clearance time is noted on the trouble ticket. This information is currently used to generate maintenance reports which show average out-of-service duration for trouble reports. This index is and will continue to be carefully monitored by each AOC as a key service indicator.

AOC managers in maintenance work groups are measured and rated based on the quality of service their units provide. The measurements track such items as average out-of-service duration. A manager, therefore, has an economic incentive to provide the best customer service in all cases.

As demonstrated above, there is no opportunity for AOC employees to discriminate on the basis of quality in providing service to customers. The provisioning process is highly mechanized and automated, with little room for individual discretion or intervention. The systems used in the circuit design, facility and equipment assignment, installation coordination, and maintenance trouble tracking processes contain no information as to a customer's business affiliation or the quality of particular facilities or equipment used to construct individual circuits.

e. TRAINING

AOC network installation and maintenance personnel will receive training on the Commission's requirements relating to the nondiscriminatory provision of services relating to ONA. The AOCs currently -- and will continue to -- advise employees involved in the provisioning of network services or the assignment of circuits that discrimination based upon the origin of a service request, or a customer's business affiliation, is forbidden. Violation of the rule will cause employees to be subjected to disciplinary action.

The training of AOC employees involved in the provisioning, installation and maintenance processes is outlined below. Sample training forms and guidelines are included in Appendix 12.

- (1) All employees involved in the provisioning, installation and maintenance of network services will be notified in writing of the Commission's nondiscrimination requirements. The AOCs will document and retain the date such information is provided and to whom it is provided. The notification will indicate that employees found in violation of the stated policies will be subject to disciplinary action up to and including dismissal.
- (2) An announcement will be made during staff and crew meetings concerning the same information contained in the written notification discussed above. The date of the announcement and the employees present will be documented and retained.
- (3) All new employees who will be involved in the provisioning, installation and maintenance of network services will be informed in writing of the Commission's nondiscrimination requirements. The AOCs will document and retain this notification.

APPENDIX H

NYNEX End User Access CEI Plan

(CC Docket 88-2, Filed February 1, 1988, pages 76-77)

~~whether a signal is delivered to a collocated network interface  
or to a non-collocated network interface.~~

~~E. Installation, Maintenance And Repair~~

~~This CEI parameter requires that the time periods for  
installation, maintenance and repair of the basic services and  
facilities included in an ONA offering must "be the same as  
those the carrier provides to its own enhanced service  
operations."\* Procedures in place in the NYNEX Telephone  
Companies ensure that all personnel involved in the  
installation, maintenance and repair of basic services, place  
the rendering of prompt and efficient service to the customer  
as the top priority without regard to whether the customer is  
internal or external to NYNEX. These procedures do not allow  
for discriminatory treatment. Mandated reporting requirements  
are discussed in detail in Section VIII(A) infra concerning  
compliance with certain other nonstructural safeguards.~~

F. End User Access

This CEI parameter requires that, as to end users who access or activate a NYNEX enhanced service in a particular manner (e.g., abbreviated dialing, signaling or derived channels), we provide "as part of [our] CEI offering the same capabilities to end-users of all enhanced services that utilize the carrier's facilities."\*\*

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\* Phase I Order at ¶ 161.

\*\* Id. at ¶ 162.



Inasmuch as NYNEX's enhanced services will use the same tariffed services that would be used by any other user, all service features and options available under tariff to NYNEX's enhanced services are also available to all other users on the same terms and conditions. Consequently, end user access will be identical for both NYNEX's enhanced services customers and the customers of competing ESPs.

~~C. CEI Availability~~

~~The Commission requires that CEI must "be fully operational and available on the date that [a carrier] offers its corresponding enhanced services to the public."\* Additionally, the carrier must "specify a reasonable time prior to this date during which prospective users of CEI, such as enhanced services competitors, can utilize the CEI facilities and services for purposes of testing their enhanced service offerings."~~

~~CEI will be operational and available on the same date that NYNEX offers its enhanced service. Additionally, the requirement for a reasonable testing period is not because the underlying BSAs, with the exception of the trunk-side circuit switched, DOV access and alarm transport\*\* BSAs, are all available today. No NYNEX enhanced service will be offered utilizing these BSAs for ninety days after they are available.~~

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\* Id. at ¶ 163.

\*\* NYNEX recently conducted a successful trial of alarm transport service with four monitoring companies. NYNEX expects to tariff alarm transport service in 1988.